

REMARKS

Claims 1-48 are pending in the present application and all claims have been rejected. In this Amendment and Response, claims 1 and 24 have been amended and claims 2, 4, 5, 25, 27, and 28 have been cancelled.

Specification

The Examiner has objected to the title as being not descriptive. Applicants have amended the title and, accordingly, respectfully request removal of the objection against the specification.

Claim Rejections under 35 U.S.C. § 101

Claims 1 and 24 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Claims 1 and 24 have been amended to more clearly recite the statutory subject matter they are directed to. Accordingly, Applicants respectfully request removal of the rejection under 35 U.S.C. § 101 against claims 1 and 24.

Claim Rejections under 35 U.S.C. § 112

Claims 1 and 24 are rejected under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. Claims 1 and 24 have been amended to more clearly recite the steps of the invention and thus include all essential steps. Accordingly, Applicants respectfully request removal of the rejection under 35 U.S.C. § 112 against claims 1 and 24.

Claim Objections

Claims 1 and 24 are objected to for various informalities. Claims 1 and 24 have been amended to remove the informalities. Accordingly, Applicants respectfully request removal of the objections against claims 1 and 24.

Claim Rejections under 35 U.S.C. § 102

Claims 1-48 stand rejected under 35 U.S.C. 102(e) as being unpatentable over U.S. Publication Number 2005/0146714 (hereinafter Kitamura).

Kitamura fails to disclose each and every element of the present claims for at least the reasons described below.

Kitamura is directed to an inspection apparatus that performs an inspection by comparing a pattern image to-be-inspected with a reference pattern. *Kitamura*, para. 332. In the Office Action dated November 4, 2008 (hereinafter “Office Action”), it appears that the pattern image to-be-inspected of Kitamura is being equated with the received design information representative of a portion of a layer of an object that comprises sub-micron measurement targets of the present claims. Office Action, page 4. However, this analogy is incorrect for at least two reasons.

First, the pattern image to-be-inspected of Kitamura is fabricated based on design data (*Kitamura*, para. 333) and therefore is not the design data as recited in the present claims. Second, the pattern image to-be-inspected of Kitamura is the image that is inspected See e.g. *Kitamura*, para. 334. In contrast, the design information of the present claims is not a pattern to-be-inspected. Rather it is processed to provide measurement targets.

The present claims recite, among other elements, storing the received design information in a database and accessing, with a processor, the stored design information. Kitamura fails to disclose either of these elements.

Kitamura also fails to disclose processing, with the processor, the stored design information to provide a large number of measurement targets, wherein a measurement target is a sub-micron object located on the layer of the object and the processing includes determining information that is representative of an object included in the portion of the layer of the object that comprises sub-micron measurement targets as recited in the present claims. Instead, Kitamura detects first edges of a pattern image to-be-inspected and compares them with edges of a first reference pattern to determine a shift quantity. *Kitamura*, para 334. The pattern to be inspected is then inspected by comparing the detected first edges with a shifted reference pattern. *Id.* Thus, Kitamura discloses inspecting a pattern to-be-inspected by comparing the pattern with a reference pattern and does not disclose processing stored information to provide a large number of measurement targets as recited in the present claims.

Additionally, Kitamura fails to disclose associating, with the processor, target measurement parameters to each of the large number of measurement targets, wherein the target measurement parameters comprise at least one of location information representative of a location of a target measurement on the layer of the object, a measurement field of view, and an electron beam parameter as recited in the present claims. The Office Action points to a few

paragraphs of Kitamura that disclose general operating procedures for the use of a CD-SEM microscope (see e.g. *Kitamura*, para. 18 and 851) as anticipating the association of target measurement parameters as recited in the present claims. Office Action, page 5. However, these operating procedures relate to the functioning of the microscope, not what is measured by the microscope. Thus, even if these operating procedures were analogous to the target measurement parameters (which the Applicants do not admit), Kitamura still fails to disclose associating target measurement parameters to each of the large number of measurement targets as recited in the present claims.

The office action also points to paragraph 54 of Kitamura as anticipating the above element. However, paragraph 54 simply lists a feature of a pattern to be inspected and not parameters for inspecting a target. Thus, the cited portions of Kitamura, as well as Kitamura on the whole, fail to disclose associating, with the processor, target measurement parameters to each of the large number of measurement targets as recited in the present claims.

Finally, Kitamura fails to disclose measuring, by a measurement tool, each measurement target of the large number of measurement targets using a target measurement parameter associated with each of the measurement targets and processing, by the processor, the measurement results as recited in the present claims.

Thus, for at least the reasons provided above, Kitamura fails to disclose each and every element of the present claims. Therefore, claims 1-48 are patentable over Kitamura for at least the reasons presented above and the removal of the 35 U.S.C. 102(e) rejection against claims 1-48 is respectfully requested.

If there are any additional fees due in connection with this communication, please charge Deposit Account No. 19-3140.

Respectfully submitted,

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